

CLAIMS

1. A liquid concentrator having a plurality of components required to operate in use under vacuum and wherein said components are adapted to be provided within a common vacuum vessel or chamber and within which a required vacuum can, in use, be established, said components including a feed section for receiving the liquid to be concentrated, an evaporation/condensing section to produce concentrated liquid and vapour, a separation means to separate the concentrated liquid from the vapour and a vapour compression means, all accommodated within the vacuum vessel or chamber.
2. A liquid concentrator as claimed in claim 1 wherein a drive means for the said vapour compression means is provided outside said vacuum vessel or chamber and a sealing means provided about a shaft of the compression means to enable its entry into the vacuum vessel or chamber and its connection, to drive, said vapour compression means.
3. A liquid compressor as claimed in claim 1 where a drive means for the said vapour compression means is also provided within said vacuum vessel or chamber.
4. A liquid concentrator as claimed in claim 1 in which the vapour compression means produces compressed steam pressurised between about .2 bar (a) to .4 bar (a) and temperatures of the feed liquid and concentrate are between about 60°C to 70°C.
5. A liquid concentrator substantially as herein described with reference to any one of the embodiments of the accompanying drawings.

AMENDED SHEETS

- 5 6. A method of constructing a liquid concentrator having a plurality of components each required to operate under a vacuum, said method including providing said components with a common vacuum vessel or chamber and adapting said vacuum vessel or chamber to have a required vacuum established therein, said components provided within the vacuum vessel or chamber including a feed section and an evaporation/condensing section having a separation area to separate concentrated liquid and vapour and a vapour compression means.
- 10 7. A method as claimed in claim 6 in which said components included within the vacuum vessel or chamber include a drive means for said vapour compression means.
- 15 8. A method of constructing a liquid concentrator substantially as herein described with reference to any one of the embodiments of the accompanying drawings.